Grade 4
Mathematics

Constructed Response Scoring Guides
Winter 1998

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1998 Grade 4
MEAP Mathematics Scoring Guides

These scoring guides and annotated papers are provided to help you evaluate and score the constructed response items on the 1998 MEAP Mathematics test. For each item a rubric and an exemplar answer are given. Student papers are provided to illustrate the rubric. The annotations are on a separate page, so that the student papers can be copied and scored as part of training.

The scoring guides provided here represent only one possibility. You may decide to create your own scoring rubric. You may want to require that spelling and grammar are part of scoring, as well as labeling (units and graphs) and showing all work. Feel free to adjust and revise the scoring guide to fit your needs.

General Recommendations and Guidelines

- Studying the sample student responses and annotations will help you understand the essence of what is expected at each score point for a particular question. Keep in mind that these sample student responses represent only a few of the many possible responses for a given score point.

- To ensure the accuracy and consistency of your scoring:

  1. Continually review the scoring rubric and the sample student papers, especially when you are in doubt about a particular response.

  2. Do not judge one student's paper by another. Instead, apply the same objective criteria to each paper by evaluating the response in terms of the scoring guide.

  3. It is advisable to conceal student names when scoring.

  4. Review papers you scored earlier in the process to make sure you are using the same criteria.

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Tyler read 9 books.
Lauren read 6 books.
Kyle read 5 books.
Emily read 12 books.

Use the data and make a graph.

Write three questions that could be answered by using the data on this graph.

4th Grade Constructed Response #1, Rubric

GRAPHS

Scoring Rubric: 5 points

First part: 2 points

2 points Correct setup for graph (axes) with data correctly represented.

1 point Part of graph setup incorrect or omitted.
OR Data graphed incorrectly or part of data omitted.

0 points Graph omitted

Second part: 3 points

3 points 3 correct questions

2 points 2 correct questions

1 point 1 correct question
OR 3 incorrect questions but student shows some understanding of the problem

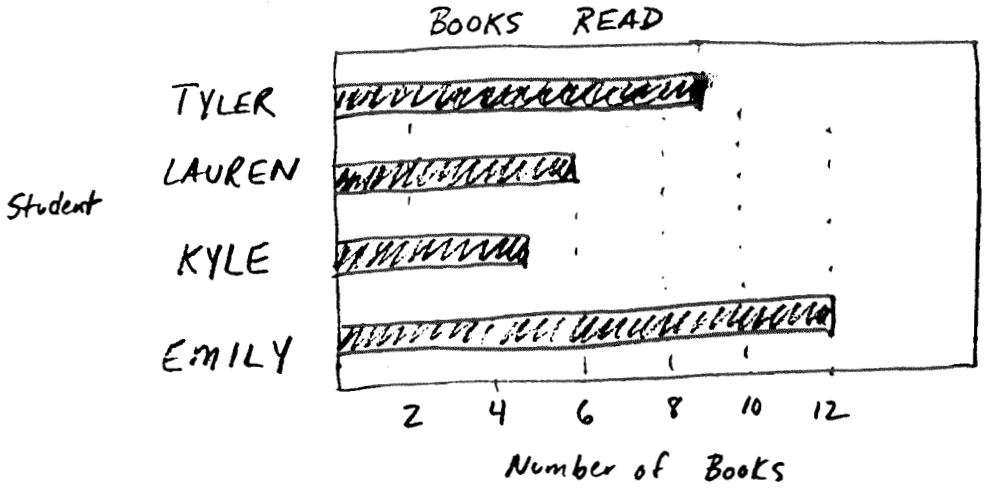
0 points Any other response

Exemplar

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Tyler read 9 books.
Lauren read 6 books.
Kyle read 5 books.
Emily read 12 books.

Use the data and make a graph.



Write three questions that could be answered by using the data on this graph.

1. How many books were read in all?
2. How many more books did Tyler read than Kyle?
3. Who read the fewest number of books?

4th Grade Constructed Response #1

SCORING: GRAPHS

#1 Score: 0
The student receives 0 points for the graph. It was omitted. No points for any of the questions as they do not relate to the data.

#2 Score: 1
1 point for a partially correct graph. Remainder of response was omitted.

#3 Score: 2
2 points for a correct graph. Zero points for the questions as they cannot be answered from the data given.

#4 Score: 3
1 point for a partially correct graph. 2 points for 2 correct questions.

#5 Score: 4
2 points for correct graph. 0 points for first question. 2nd and 3rd questions are correct for 1 point each.

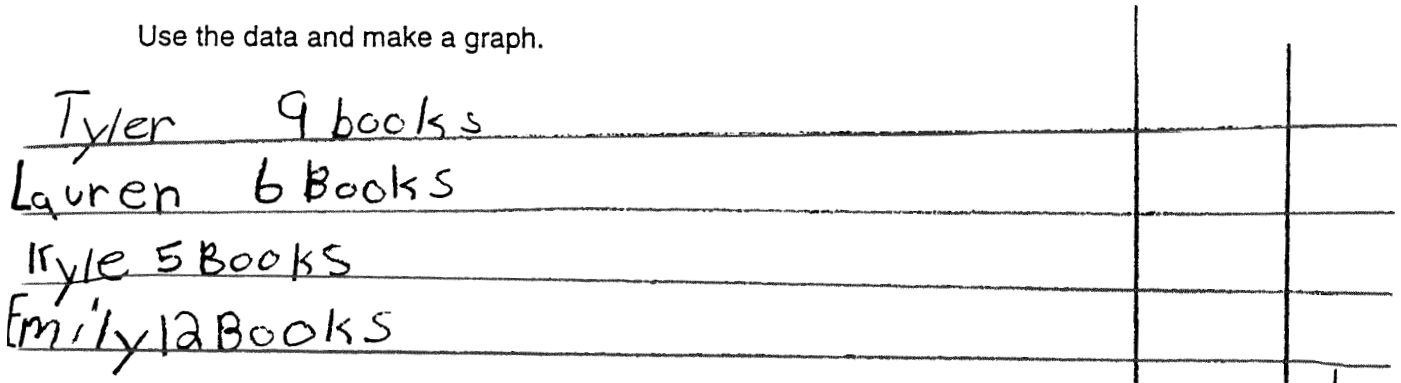
#6 Score: 5
2 points for a correct graph.
3 points for 3 correct questions.

Paper 1

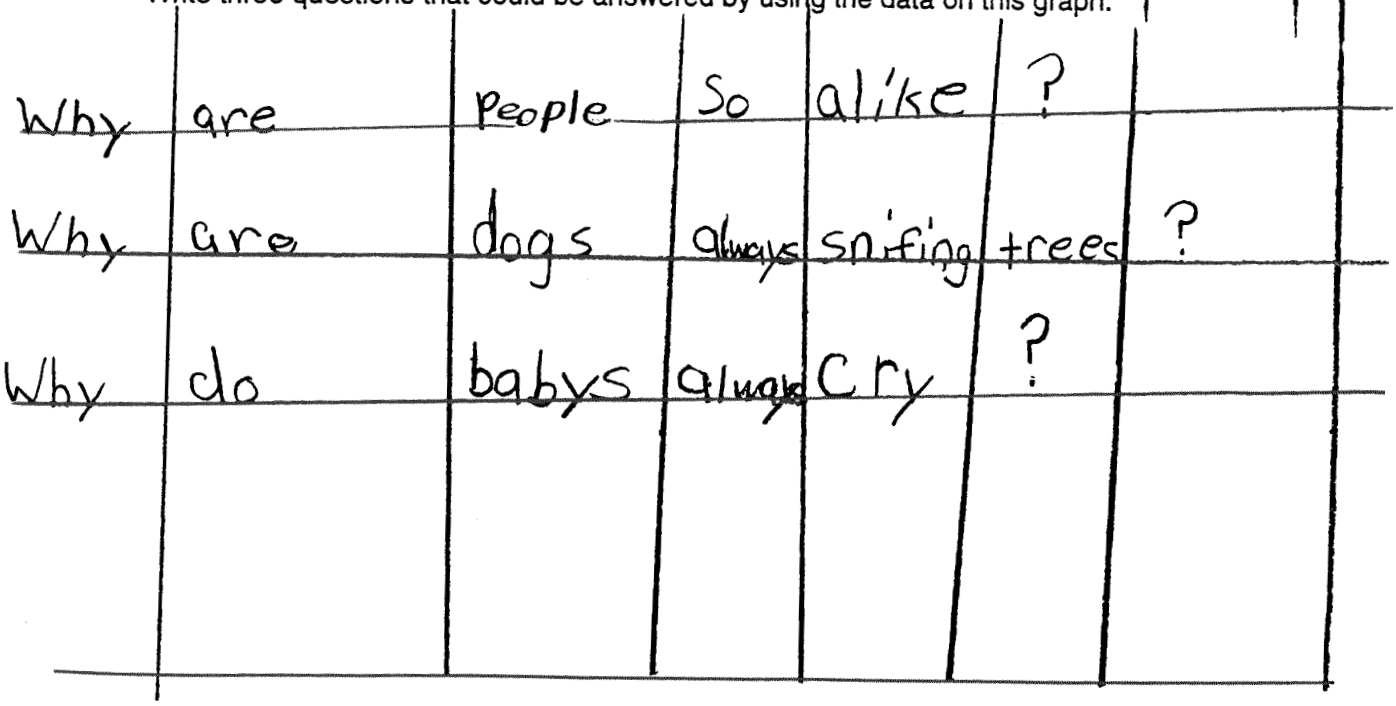
Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Tyler read 9 books.
Lauren read 6 books.
Kyle read 5 books.
Emily read 12 books.

Use the data and make a graph.



Write three questions that could be answered by using the data on this graph.



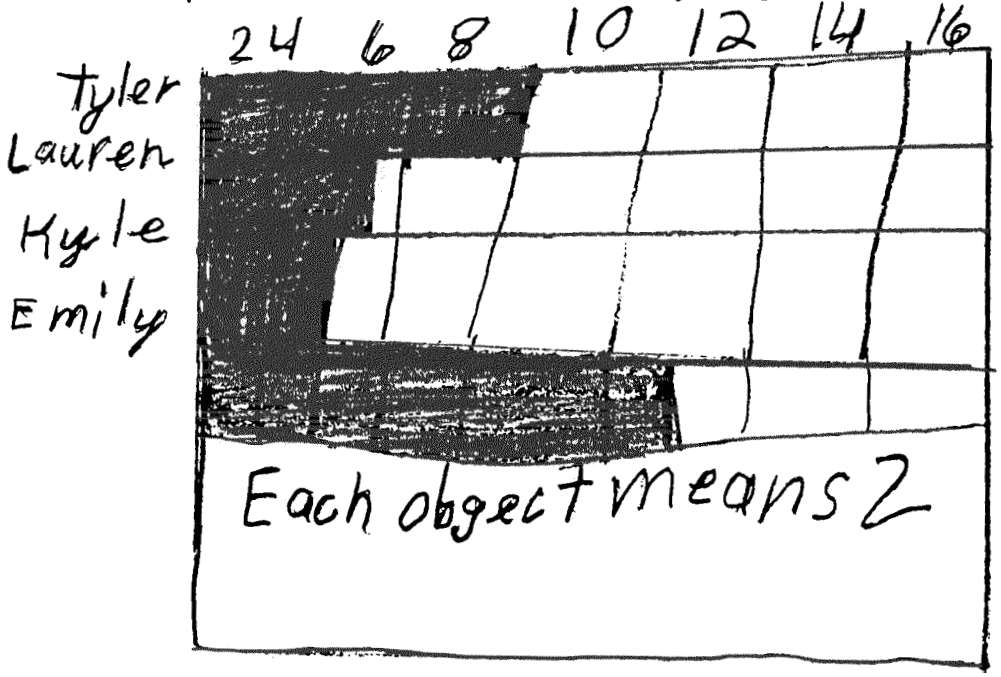
Paper 2

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Tyler read 9 books.
Lauren read 6 books.
Kyle read 5 books.
Emily read 12 books.

Use the data and make a graph.

Write three questions that could be answered by using the data on this graph.

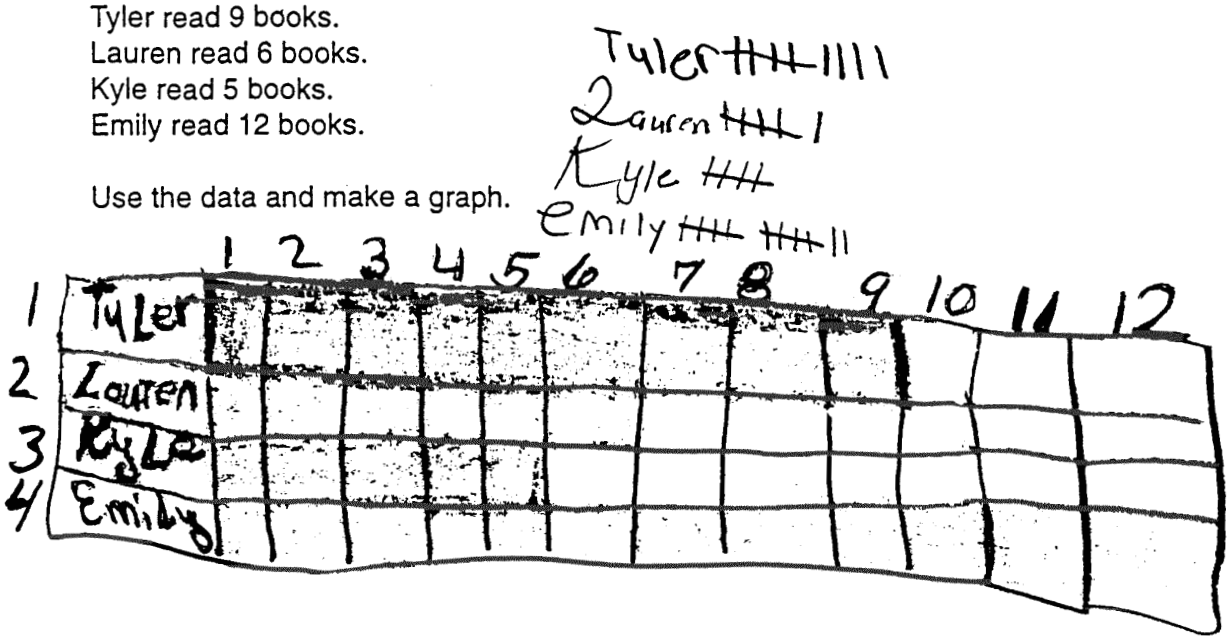


Paper 3

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Tyler read 9 books.
Lauren read 6 books.
Kyle read 5 books.
Emily read 12 books.

Use the data and make a graph.



Write three questions that could be answered by using the data on this graph.

What nine books did tyler read?

Did Lauren read all six books at a time?

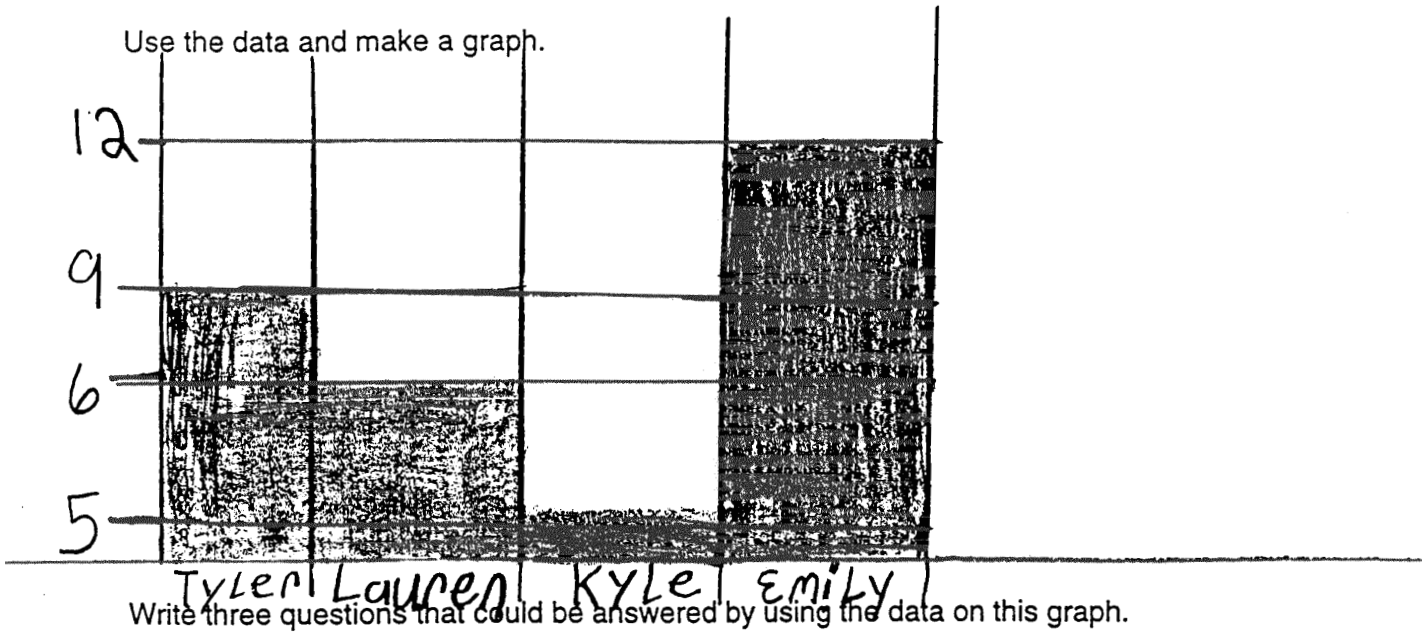
Were was emily when she started reading?

Paper 4

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Tyler read 9 books.
Lauren read 6 books.
Kyle read 5 books.
Emily read 12 books.

Use the data and make a graph.



Write three questions that could be answered by using the data on this graph.

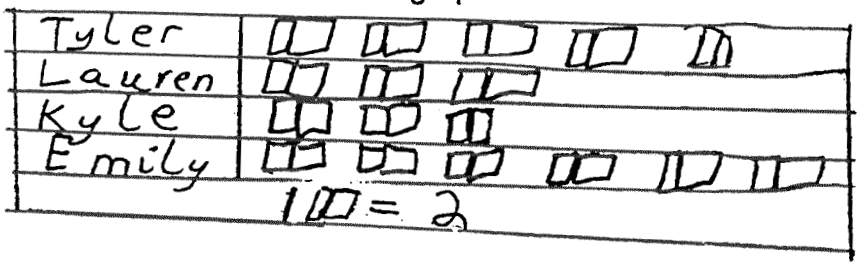
How many books did Emily read?
How many books were read all together?

Paper 5

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Tyler read 9 books.
Lauren read 6 books.
Kyle read 5 books.
Emily read 12 books.

Use the data and make a graph.



Write three questions that could be answered by using the data on this graph.

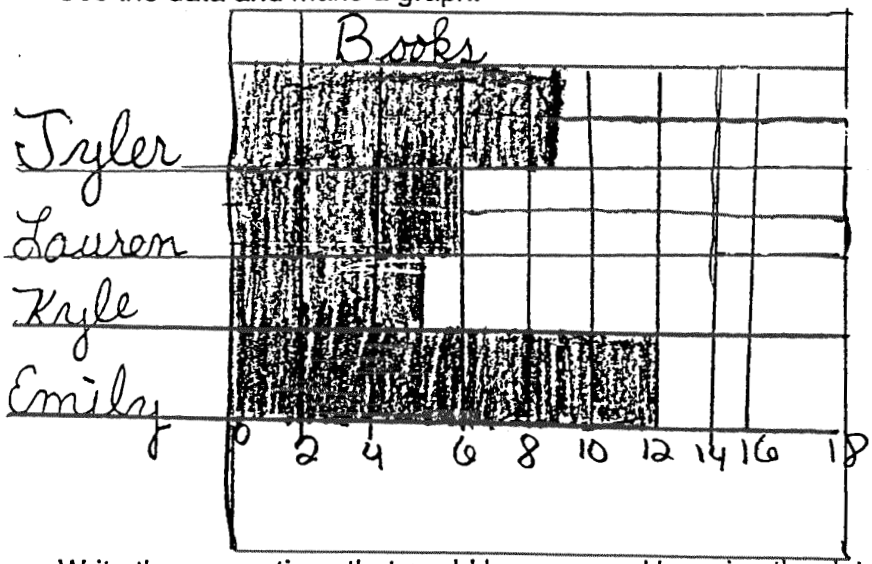
1. If Emily read 13 more books then how would have read?
2. How many books did they read all together?
3. How many did Kyle and Emily read together?

Paper 6

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Tyler read 9 books.
Lauren read 6 books.
Kyle read 5 books.
Emily read 12 books.

Use the data and make a graph.



Write three questions that could be answered by using the data on this graph.

① How many books were read altogether?
② How many more books did Emily read than Tyler?
③ How many did Lauren and Kyle read altogether?

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

IT'S YOUR SPECIAL DAY!

You may have three of your friends over to spend two hours. Using the activities from the list, make a plan that allows you to do the most activities in two hours.

PLAY SOCCER	24 MINUTES
PLAY A GAME	30 MINUTES
PAINT	20 MINUTES
SKATE	30 MINUTES
EAT SNACKS	15 MINUTES
SWIM	60 MINUTES
PUT ON A PLAY	50 MINUTES

Explain your plan.

How much time will you use?

How much time will you have left?

4th Grade Constructed Response #2, Rubric

ACTIVITIES

Scoring Rubric: 4 points

First part: 2 points

2 points Correct plan showing the correct 5 activities

1 point Partially correct plan
OR A plan between 60-120 minutes

0 points Any other answer

Second part: 1 point

1 point Correct amount of time based on plan in First Part

0 points Any other answer

Third part: 1 point

1 point Correct amount of time based on answers in First and Second Parts

0 points Any other response

Exemplar

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

IT'S YOUR SPECIAL DAY!

You may have three of your friends over to spend two hours. Using the activities from the list, make a plan that allows you to do the most activities in two hours.

PLAY SOCCER	24 MINUTES
PLAY A GAME	30 MINUTES
PAINT	20 MINUTES
SKATE	30 MINUTES
EAT SNACKS	15 MINUTES
SWIM	60 MINUTES
PUT ON A PLAY	50 MINUTES

Explain your plan.

1st play a game 30
2nd paint 20
3rd skate 30
4th eat snacks 15
5th play soccer 24

How much time will you use?

30
20
30
15
+ 24
119

119 minutes

How much time will you have left?

120 − 119 = 1 minute

4th Grade Constructed Response #2,

SCORING: ACTIVITIES

#1 Score: 0

0 points for First Part. Plan does not show activities totalling between 60-120 minutes. 0 points in 2nd part for incorrect total time. 0 points in 3rd part for incorrect time remaining.

#2 Score: 0

0 points. All 3 parts incorrect.

#3 Score: 1

1 point for partially correct plan. Zero points for incorrect answers in 2nd and 3rd parts.

#4 Score: 2

1 point for partially correct plan. 1 point for correct total time in 2nd part. 0 points for omitting 3rd part.

#5 Score: 3

1 point in first part for partially correct plan. 1 point for correct number of minutes in 2nd part and 1 point for correct time remaining in 3rd part.

#6 Score: 3

2 points for correct plan including correct 5 activities. 0 points in 2nd part for incorrect total time used. 1 point for 3rd part which has correct time remaining based on incorrect answer in 2nd part.

#7 Score: 4

2 points for correct plan including all 5 activities. 1 point for each of second and third parts having correct times.

Paper 1

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

IT'S YOUR SPECIAL DAY!

You may have three of your friends over to spend two hours. Using the activities from the list, make a plan that allows you to do the most activities in two hours.

PLAY SOCCER	24 MINUTES
PLAY A GAME	30 MINUTES
PAINT	20 MINUTES
SKATE	30 MINUTES
EAT SNACKS	15 MINUTES
SWIM	60 MINUTES
PUT ON A PLAY	50 MINUTES

Explain your plan.

Play a game

How much time will you use?

30 Minutes

How much time will you have left?

none

Paper 2

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

IT'S YOUR SPECIAL DAY!

You may have three of your friends over to spend two hours. Using the activities from the list, make a plan that allows you to do the most activities in two hours.

PLAY SOCCER	24 MINUTES
PLAY A GAME	30 MINUTES
PAINT	20 MINUTES
SKATE	30 MINUTES
EAT SNACKS	15 MINUTES
SWIM	60 MINUTES
PUT ON A PLAY	50 MINUTES

Explain your plan.

Play Socer-Skate-eat Snokes—Put on a Play.
Paint — Play a Game-Swim.

How much time will you use?

2 hours

How much time will you have left?

29 minites

Paper 3

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

IT'S YOUR SPECIAL DAY!

You may have three of your friends over to spend two hours. Using the activities from the list, make a plan that allows you to do the most activities in two hours.

PLAY SOCCER	24 MINUTES
PLAY A GAME	30 MINUTES
PAINT	20 MINUTES
SKATE	30 MINUTES
EAT SNACKS	15 MINUTES
SWIM	60 MINUTES
PUT ON A PLAY	50 MINUTES

Explain your plan. paint 20 minutes
Eat snacks 15 minutes
Swim 60 minutes

How much time will you use?

$40 + 30 = 70$ $50 + 60 = 110$ $60 + 70 = 130$ $80 + 20 = 100$ $70 + 90 = 160$ $80 + 40 = 120$ $20 + 30 = 50$ $10 + 11 = 21$

How much time will you have left?

$3 \times 3 = 9$ $8 \times 8 = 64$ $2 \times 5 = 10$ $12 \times 12 = 144$ $100 + 100 = 200$ $30 + 80 = 110$

Paper 4

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

IT'S YOUR SPECIAL DAY!

You may have three of your friends over to spend two hours. Using the activities from the list, make a plan that allows you to do the most activities in two hours.

PLAY SOCCER	24 MINUTES
PLAY A GAME	30 MINUTES
PAINT	20 MINUTES
SKATE	30 MINUTES
EAT SNACKS	15 MINUTES
SWIM	60 MINUTES
PUT ON A PLAY	50 MINUTES

Explain your plan.

Me and my friends would play a game for 30 min We skate for 30 min and Play Socer for 24 min and Eat Snaks for 15 min

How much time will you use?

1:39

How much time will you have left?

Paper 5

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

IT'S YOUR SPECIAL DAY!

You may have three of your friends over to spend two hours. Using the activities from the list, make a plan that allows you to do the most activities in two hours.

PLAY SOCCER	24 MINUTES
PLAY A GAME	30 MINUTES
PAINT	20 MINUTES
SKATE	30 MINUTES
EAT SNACKS	15 MINUTES
SWIM	60 MINUTES
PUT ON A PLAY	50 MINUTES

Explain your plan Swim, play a game, skat.

How much time will you use? 120

How much time will you have left? 0

Paper 6

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

IT'S YOUR SPECIAL DAY!

You may have three of your friends over to spend two hours. Using the activities from the list, make a plan that allows you to do the most activities in two hours.

PLAY SOCCER	24 MINUTES
PLAY A GAME	30 MINUTES
PAINT	20 MINUTES
SKATE	30 MINUTES
EAT SNACKS	15 MINUTES
SWIM	60 MINUTES
PUT ON A PLAY	50 MINUTES

Explain your plan.

first - play Soccer 5th - skate
2nd - play a game
3rd - Paint
4th - Eat a Snack

How much time will you use?

60 min and 45 min.

How much time will you have left?

15 min.

Paper 7

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

IT'S YOUR SPECIAL DAY!

You may have three of your friends over to spend two hours. Using the activities from the list, make a plan that allows you to do the most activities in two hours.

24	PLAY SOCCER	24 MINUTES
30	PLAY A GAME	30 MINUTES
20	PAINT	20 MINUTES
30	SKATE	30 MINUTES
15	EAT SNACKS	15 MINUTES
	SWIM	60 MINUTES
	PUT ON A PLAY	50 MINUTES

Explain your plan.

Play Soccer for 24 minutes
Play a game for 30 minutes
Paint for 20 minutes
Skate for 15 minutes and Eat snacks for 15 minutes

How much time will you use?

1 hour and 59 minutes

How much time will you have left?

1 minute